

中国狭蚱属分类学综述及一新种记述 (直翅目: 短翼蚱科)

郑哲民

(陕西师范大学动物研究所, 西安 710062)

摘要: 系统研究了分布于中国的狭蚱属 *Xistra* 的种类, 共计有 6 种, 包括 1 新种, 即雅安狭蚱 *Xistra yaanensis* sp. nov.。记述了中国已记录种的引证和分布地区, 提供了该属全部种类的分种检索表。新种的模式标本保存于陕西师范大学动物研究所昆虫标本室。

关键词: 直翅目; 短翼蚱科; 狭蚱属; 分类; 新种; 中国

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Taxonomic review of the genus *Xistra* Bolivar (Orthoptera: Metrodoridae) from China with description of a new species

ZHENG Zhe-Min (Institute of Zoology, Shaanxi Normal University, Xi'an 710062, China)

Abstract: The paper deals with 6 species of the genus *Xistra* Bolivar from China, including one new species from Ya'an, Sichuan, *Xistra yaanensis* sp. nov. A key to all species of the genus is provided. Type specimens of new species are kept in the Institute of Zoology, Shaanxi Normal University.

Key words: Orthoptera; Metrodoridae; *Xistra*; taxonomic; new species; China

狭蚱属 *Xistra* 为 Bolivar (1887) 年建立, 属模式种为 *X. gogorae* Bolivar, 1887, 同时记述了分布于菲律宾的 *X. impressa* Bolivar, 1887、*X. lurida* Bolivar, 1887、*X. similis* Bolivar, 1887、*X. ochracea* Bolivar, 1887、*X. sagittata* Bolivar, 1887 及 *X. sagittaria* Bolivar, 1887 等 6 种, 并将 *Tetrix corniculatus* Stål, 1877 转入 *Xistra* 属中: *X. corniculatus* (Stål, 1877); Brunner von Watterwyl (1893) 记述了分布于缅甸的 *X. dubia* Br.-W., 1893; Bolivar (1898) 记述了分布于爪哇的 *X. tricristata* Bolivar, 1898 及分布于苏门答腊 *X. triscristata* var. *sumatrana* Bolivar, 1898; Hancock (1907) 记述了分布于斯里兰卡的 *X. stylata* Hancock, 1907; Hancock (1915) 记述了分布于锡金的 *X. sikkimensis* Hancock, 1915; Günther (1935) 记述了分布于婆罗州的 *X. cristifera* Günther, 1935。Günther (1939) 在对 Metrodorinae (短翼蚱亚科) 的修订中, 发现 *Xistra* 属中组成极为不纯, 因而将大部分种转移, 将 *X. corniculata* (Stål, 1877), *X. sagittaria* Bolivar, 1887 及 *X. cristifera* Günther, 1935

等 3 种转入 Scelimenae 的 *Tegottix* Hancock, 1913 属中; 将 *X. stylata* Hancock, 1907 及 *X. dubia* Br.-W., 1898 转入新建立的 *Xistrella* Günther, 1939 属中; 将 *X. impressa* Bolivar, 1887 转入 *Lamellitettix* Hancock, 1902 属中; 将 *X. lurida* Bolivar, 1887、*X. similes* Bolivar, 1887 及 *X. ochracea* Bolivar, 1887 转入 *Pseudoparatettix* Günther, 1937 属中; 将 *X. tricristata* Bolivar, 1898 及 *X. tricristata* var. *sumatrana* Bolivar, 1898 转入新建立的 *Lamellitettigodes* Günther, 1939 属中; 将 *X. sagittata* Bolivar, 1887 转入 *Paratettix* Bolivar, 1887 属中。郑哲民 (1988) 记述了分布于中国西藏地区的 *X. laticorna* Zheng, 1988; 郑哲民和蒋国芳 (1998) 年记述了分布于广西的 *X. longzhouensis* Zheng et Jiang, 1998; Ingrisch (2001) 记述了分布于尼泊尔的 *X. angusta* Ingrisch, 2001 及 *X. longicornis* Ingrisch, 2001; 郑哲民和蒋国芳 (2002) 记述了分布于广西的 *X. nigrithibialis* Zheng et Jiang, 2002; 梁铭球和蒋国芳 (2004) 记述了分布于广西的 *X. longidorsalis* Liang et Jiang, 2004; 郑哲民 (2005) 记述了分布于西藏地区的 *X. medogensis*

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作者简介: 郑哲民, 男, 1932 年 2 月生, 教授, 主要从事于蝗虫分类学研究, E-mail: zhengzhemin@163.com

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Zheng, 2005; Ingrisch (2006) 将 *X. sikkimensis* Hancock, 1915 转入 *Euparatettix* Hancock, 1904 属中。至此, *Xistra* 属中共计有 8 种, 作者在整理中国的狭蚱属种类时, 又发现一新种, 并记述如下。

狭蚱属 *Xistra* Bolivar, 1887

Xistra Bolivar, 1887, *Ann. Soc. Entomol. Belg.*, 31: 242; Kirby, 1914, *Fauna Brit. India Orthoptera Vol. 1 Acrididae*, pp55; Hancock, 1915, *Rec. Ind. Mus. Calcutta*, 11; Gunther, 1939, *Abh. Mus. Tierk. Volkerk. Dresden*, 20(A): 159–160; Shishodia, 1991, *Rec. Zool. Surv. India, Occ. Paper no. 140*, 103–105; Liang and Zheng, 1988, *Fauna Sinica*,

Insecta. Vol. 12, Ortho., Tetrigoidea, 102; Zheng, 2005, *Journal of Huazhong Agricultural University*, 24(2): 129–132; Zheng, 2005, *Fauna of Tetrigoidea from Western China*, 124.

模式种: *Xistra gogorae* Bolivar, 1887

头顶常凹陷, 头顶的侧缘明显高出复眼之上, 复眼高出头顶; 侧面观, 颜面倾斜, 颜面隆起在触角之间略突出。触角着生于复眼下缘之下, 丝状, 细长。前胸背板狭长, 前缘平截, 后突长, 肩角钝; 前胸背板侧片向外翻, 狭, 后角顶斜切。前翅长卵形, 后翅发达。前足股节侧扁, 上缘隆线完整; 后足跗节第 1 节等于或略长于第 3 节。

已知 9 种, 主要分布于菲律宾、尼泊尔和中国。

狭蚱属分种检索表

- 1(4) 头部前面观, 头顶形成“V”形深凹陷
- 2(3) “V”形凹陷较深, 底部到达复眼内缘的中部; 侧面观前胸背板上缘在肩部明显隆起, 其后形成一凹陷。分布于菲律宾…………… 歌哥狭蚱 *X. gogorae* Bolivar, 1887
- 3(2) “V”形凹陷较浅, 底部到达复眼内缘上 1/3 处; 侧面观前胸背板上缘平直。分布于广西…………… 黑胫狭蚱 *X. nigrilateralis* Zheng et Jiang, 2002
- 4(1) 头部前面观, 头顶形成一底部较平的“U”形凹陷
- 5(8) 头顶与一眼等宽
- 6(7) 肩部之间具一对短纵隆线; 侧单眼位于复眼下缘之间; 后足胫节黄褐色。分布于西藏…………… 侧角狭蚱 *X. laticornis* Zheng, 1988
- 7(6) 肩部之间不具一对短纵隆线; 侧单眼位于复眼前缘下 1/3 处; 后足胫节上具 3 个黑环。分布于广西…………… 长背狭蚱 *X. longidorsalis* Liang et Jiang, 2004
- 8(5) 头顶狭于一眼宽
- 9(14) 侧面观前胸背板上缘平直; 后翅不到达或到达后突的顶端
- 10(11) 颜面隆起在触角之间的宽度宽于触角基节宽; 在肩部之间具一对短纵隆线; 在肩部后侧缘具一对突起; 后足胫节褐色。分布于广西…………… 龙州狭蚱 *X. longzhouensis* Zheng et Jiang, 1998
- 11(10) 颜面隆起在触角之间的宽度狭于触角基节宽; 在肩部之间不具一对短纵隆线; 在肩部后侧缘不具一对突起
- 12(13) 侧单眼位于复眼前缘下 1/3 处; 后翅到达后突的顶端; 后足胫节黑色, 基部和中部具淡色环。分布于四川…………… 雅安狭蚱 *X. yaanensis* sp. nov.
- 13(12) 侧单眼位于复眼下缘之间; 后翅不到达后突的顶端; 后足胫节黄褐色。分布于西藏…………… 墨脱狭蚱 *X. medogensis* Zheng, 2005
- 14(9) 侧面观前胸背板上缘在肩部前具 2 个丘形隆起或鸡冠状; 后翅超过前胸背板的顶端
- 15(16) 头顶前缘略突出; 侧面观, 颜面隆起在复眼之间稍突出; 颜面隆起侧缘近平行; 侧面观前胸背板上缘在肩部前具 2 个丘形隆起; 后突到达后足胫节顶 1/4 处; 后翅到达或超过后足胫节顶端; 体表具细颗粒。分布于尼泊尔…………… 瘦狭蚱 *X. angusta* Ingrisch, 2001
- 16(15) 头顶前缘平截; 侧面观, 颜面隆起在复眼之间明显突出; 颜面隆起侧缘上部较狭而下部宽; 侧面观前胸背板上缘在肩部之间呈鸡冠状突起; 后突几到达后足胫节中部; 后翅到达后足胫节顶端; 体表具有较大的瘤突。分布于尼泊尔…………… 长角狭蚱 *X. longicornis* Ingrisch, 2001

Key to the species of *Xistra* Bolivar

- 1(4) Head in front view, vertex V-shaped
- 2(3) V-shape concavity deeper, reaching the middle of the inner margin of eyes; in profile, upper margin of pronotum convex between shoulders. Distribution: Philippine…………… *X. gogorae* Bolivar, 1887
- 3(2) V-shaped concavity shallow, reaching upper one third of the inner margin of eyes; in profile, upper margin of pronotum straight. Distribution: China (Guangxi)…………… *X. nigrilateralis* Zheng et Jiang, 2002
- 4(1) Head in front view, vertex U-shaped
- 5(8) Width of vertex as wide as the width of an eye

- 6(7) With a pair short longitudinal keels between shoulders; lateral ocelli placed in the lower margin of eyes; hind tibia yellow brown.
Distribution: China (Xizang) *X. laticornis* Zheng, 1988
- 7(6) Without a pair short longitudinal keels between shoulders; lateral ocelli placed in the lower one third of anterior margin of eyes; hind tibia with three black rings. Distribution: China (Guangxi) *X. longidorsalis* Liang et Jiang, 2004
- 8(5) Width of vertex narrower than the width of an eye
- 9(14) In profile, upper margin of pronotum straight; hind wing not reaching or reaching the top of hind process of pronotum
- 10(11) Width of frontal ridge wider than the width of basal segment of antennae; with a pair short longitudinal keels between shoulders; dorsum of pronotum with a pair projections behind shoulders; hind tibia brown. Distribution: China (Guangxi)
..... *X. longzhouensis* Zheng et Jiang, 1998
- 11(10) Width of frontal ridge narrower than the width of basal segment of antennae; without a pair short longitudinal keels between shoulders; dorsum of pronotum without a pair projections behind shoulders
- 12(13) Lateral ocelli placed the lower one third of anterior margin of eyes; hind wing reaching the top of hind femur; hind tibia black, with light rings in the basal and middle part of tibia. Distribution: China (Sichuan) *X. yaanensis* sp. nov.
- 13(12) Lateral ocelli placed the lower margin of eyes; hind wing not reaching the top of hind femur; hind tibia yellow brown. Distribution: China (Xizang) *X. medogensis* Zheng, 2005
- 14(9) In profile, upper margin of pronotum with two convexities or crest; hind wing reaching behind the top of pronotum
- 15(16) Anterior margin of vertex slightly projecting; in profile, frontal ridge projecting between eyes slightly; lateral margins of frontal ridge parallel; in profile, upper margin of pronotum with two convexities; hind process of pronotum reaching one fourth the top of hind tibia; hind wing reaching or reaching behind the top of hind tibia; surface with very fine granules. Distribution: Nepal
..... *X. angusta* Ingrisch, 2001
- 16(15) Anterior margin of vertex truncate; in profile, frontal ridge projecting between eyes distinctly; lateral margins of frontal ridge very narrow in dorsal area and widened in lower area; in profile, upper margin of pronotum undulating crest between shoulders; hind process of pronotum nearly reaching the middle of hind tibia; hind wing reaching the top of hind tibia; integument granular and tuberculate. Distribution: Nepal *X. longicornis* Ingrisch, 2001

1 侧角狭蚱 *Xistra laticornis* Zheng, 1988

Xistra laticornis Zheng, 1988, Insects of Mt. Nanjagbarwa Region of Xizang, 48 – 49; Liang and Zheng, 1998, Fauna Sinica, Insecta Vol. 12, Orth., Tetrigoidea, 103; Zheng, 2005, Fauna of Tetrigoidea from Western China, 125 – 126.

观察标本: 2 ♂ 1 ♀, 西藏: 墨脱 (西让), 2002-05-19。

分布: 西藏。

2 黑胫狭蚱 *Xistra nigrithibialis* Zheng et Jiang, 2002

Xistra nigrithibialis Zheng et Jiang, 2002, Acta Entomologica Sinica, 45 (Suppl.): 9 – 10; Zheng, 2005, Fauna of Tetrigoidea from Western China, 126 – 127.

观察标本: 1 ♂ 1 ♀, 广西: 龙州, 1998-10-09。

分布: 广西。

3 长背狭蚱 *Xistra longidorsalis* Liang et Jiang, 2004

Xistra longidorsalis Liang et Jiang, 2004, Acta Zootaxonomica Sinica, 29(1): 117; Zheng, 2005, Fauna of Tetrigoidea from Western China, 128.

观察标本: 2 ♀, 广西: 田林 (李闹山), 2002-05-29。

分布: 广西。

4 龙州狭蚱 *Xistra longzhouensis* Zheng et Jiang, 1998

Xistra longzhouensis Zheng et Jiang, 1998, Grasshoppers and Locusts from Guangxi, 303 – 304; Zheng, 2005, Fauna of Tetrigoidea from Western China, 128 – 129.

观察标本: 1 ♂ 1 ♀, 广西: 龙州 (弄岗), 1994-05-27。

分布: 广西。

5 墨脱狭蚱 *Xistra medogensis* Zheng, 2005

Xistra medogensis Zheng, 2005, Journal of Huazhong Agricultural University, 24(2): 130 – 131; Zheng, 2005, Fauna of Tetrigoidea from Western China, 129 – 131.

观察标本: 2 ♀, 西藏: 墨脱, 2003-08-16。

分布: 西藏。

6 雅安狭蚱, 新种 *Xistra yaanensis* sp. nov. (图 1~3)

雄性: 体小型, 狭长。头部高出前胸背板之上; 头顶狭, 明显狭于一眼宽, 前缘圆弧形, 不突出于复眼之前, 侧缘平行而反折, 中隆线明显; 前面观, 头顶呈“U”形凹陷, 侧缘与复眼上缘平; 侧面观, 头顶不突出于复眼前缘, 颜面隆起在触角之间弧形突出; 颜面隆起在触角之间的宽度狭于触角

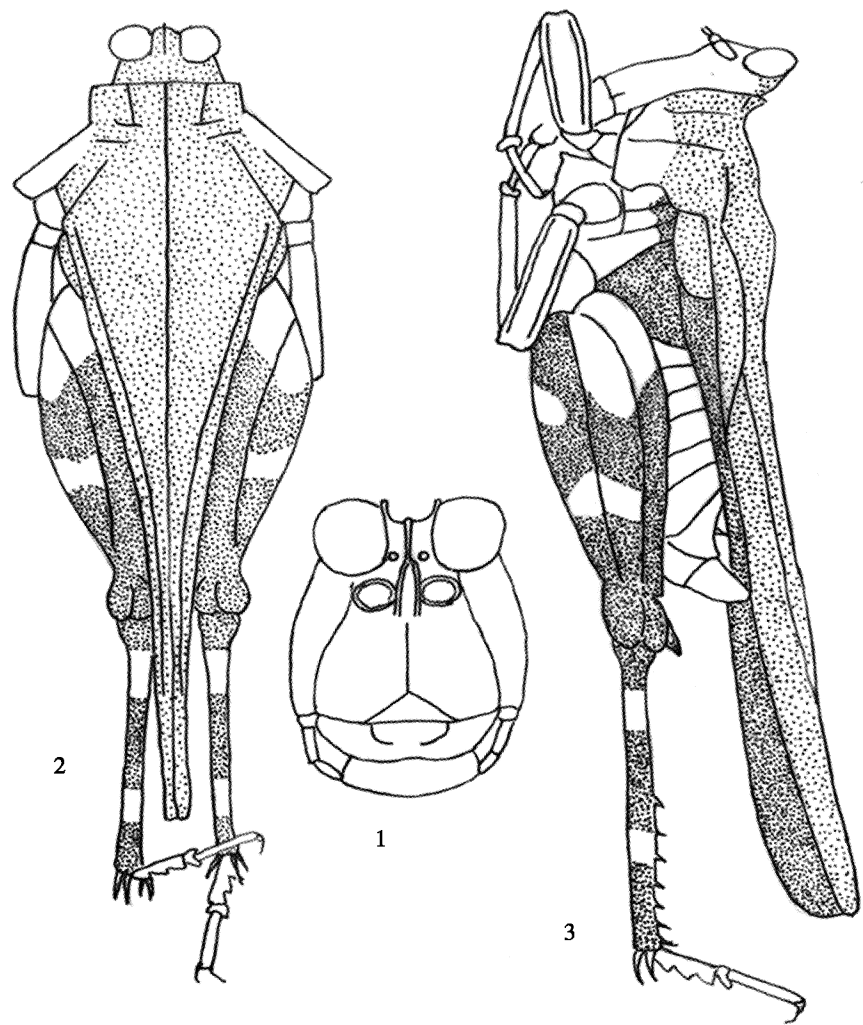


图 1~3 雅安狭蚱

Figs. 1-3 *Xistra yaanensis* sp. nov.

1. 头部前面观 Head, front view; 2. 整体背面 Body, dorsal view; 3. 整体侧面 Body, lateral view.

表 1 雅安狭蚱与近缘种之主要区别

Table 1 Main differences between *Xistra yaanensis* sp. nov. and its allies

	龙州狭蚱 <i>X. longzhouensis</i>	雅安狭蚱 <i>X. yaanensis</i>	墨脱狭蚱 <i>X. medogensis</i>
颜面隆起在触角间宽度	宽于触角基节宽	狭于触角基节宽	狭于触角基节宽
侧单眼位于复眼	前缘下 1/3 处	前缘下 1/3 处	下缘之间
肩部之间	具一对短纵隆线	不具一对短纵隆线	不具一对短纵隆线
肩部后侧缘	具一对突起	不具一对突起	不具一对突起
后翅	到达后突顶端	到达后突顶端	不到达后突顶端
后足胫节	褐色	黑色, 中部具 2 淡色环	黄褐色

基节宽。触角丝状, 着生于复眼下缘之下。复眼球形, 突出; 侧单眼位于复眼前缘下 1/3 处。前胸背板背面密具细小颗粒; 前缘平直, 中隆线全长明显; 侧面观背板上缘近平直, 仅肩部处微突起; 沟

前区侧隆线短, 几平行, 后端略收缩; 肩角钝角形; 后突长锥形, 顶端几达后足胫节顶端; 前胸背板侧片外翻, 后缘具 2 凹陷, 后角端部平截。前翅长卵形, 顶圆; 后翅发达, 到达后突的顶端。前足股节

略扁,上、下缘平直,并略宽于中足股节;中足股节上、下缘平直,中足股节的宽度与前翅能见部分等宽;后足股节粗壮,膝前齿直角形,膝齿尖锐;后足胫节外侧具刺6~7个,内侧具刺6个;后足跗节第1节与第3节等长,第1跗节下之三垫等长,顶钝。下生殖板短锥形。

体背面黑褐色,颜面灰白色,头部背面黑褐色;前胸背板黑褐色,侧片下半部灰白色;前翅黑褐色;后翅黑色;后足股节外侧黑褐色,具二灰白色斑,内侧黄褐色;后足胫节黑色,中部具二淡色环;胸、腹部腹板全黑色。

雌性:未知。

体长:♂7.5~8 mm;前胸背板长:♂11~12 mm;后足股节长:♂5~6 mm。

正模♂,四川:雅安,2004-07-20,吴亮采;副模1♂,同正模。

该新种近似于龙州狄蚱 *X. longzhouensis* Zheng et Jiang, 1998 及墨脱狭蚱 *X. medogensis* Zheng, 2005, 主要区别见表1。

词源:种名以模式产地 Ya'an 为名。

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Appendix: Brief descriptions of new taxa

Xistra yaanensis sp. nov. (Figs. 1–3)

The new species resembles *X. longzhouensis* Zheng et Jiang, 1988 and *X. medogensis* Zheng, 2005, but differs from both by the hind tibia black, with two light rings in the middle. It differs from *X. longzhouensis* in: 1) width of frontal ridge narrower than the width of basal segment of antennae; 2) without a pair short longitudinal keels between shoulders; 3) dorsum of pronotum without a pair of projections behind shoulders. Meanwhile, it differs from *X. medogensis* in: 1) lateral ocelli placed in the lower one third of anterior margin of eyes; 2) hind wing reaching the top of hind femur.

Length of body: ♂7.5–8 mm; length of pronotum: ♂11–12 mm; length of hind femur: 5–6 mm.

Holotype ♂, Sichuan: Ya'an, 103°1' E, 30° N. 20-July-2004, collected by Wu Liang; paratype 1 ♂, same data as holotype.

Etymology: The specific name is derived from the type locality Ya'an.